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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,436	03/03/2005	Yoshinori Takahashi	266835US2PCT	3403

22850 7590 09/26/2006

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EXAMINER

MOTTOLA, STEVEN J

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 09/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/526,436	Applicant(s) TAKAHASHI ET AL.	
	Examiner Steven J. Mottola	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 is/are allowed.
- 6) ☒ Claim(s) 4 and 7 is/are rejected.
- 7) ☒ Claim(s) 5, 6 and 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>030305</u> . | 6) <input type="checkbox"/> Other: ____ |

The disclosure is objected to because of the following informalities: fig. 1 should be labeled as --prior art--.

Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Koullias.

Refer to fig. 2 of Koullias. An RF amplifier whose gain is controlled is disclosed. Transistors 22.5,22.6 form a differential pair and may be read as an element circuit having two inputs, a control voltage V_{agc} (misabeled V_{acc} in the figure) and a reference voltage V_{ref}. Either collector current may be read as the output current and the current from source 21 may be read as the input current. The output current will vary in a predetermined fashion for a given control voltage change, and this rate will be constant over the linear range of the transistor. Likewise, 22.1,22.2,22.3 & 22.4 may be read as a circuit element in cascade with the above pair having inputs receiving the control voltage V_{agc} and the reference V_{ref}, but note that here the reference voltage is offset by an amount V_{os} which may be read as the claimed step. The output currents of this stage control the amplification of the RF amplifier by controlling multipliers M1-M4, which may be read as the amplifier of the last paragraph of the claim. See col. 4, lines 3-30 of Koullias.

Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Seiichi.

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This is Japanese patent document 2000-13159 cited by the applicant. Fig. 12 appears to show cascaded amplifiers AMP1, AMP2 which may be read as the element circuits claimed each having two inputs for a gain control voltage V_{gc} and a reference voltage V_b , but the reference voltage for AMP2 is offset by V_{os} which may be read as the step claimed. Fig. 15 shows that the gain will increase at essentially constant rate over some of the range of control voltage. AMP1 receives an input voltage S_{in} and AMP2 supplies an output voltage S_{out} .

Claims 5-6 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The element circuit detail of these claims is not shown in the references relied upon above.

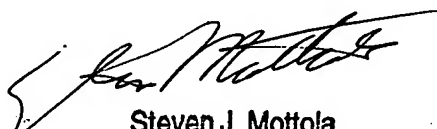
Claims 1-3 are allowed.

The multipliers of claim 1 are not shown in the references relied upon above in the context claimed, as the multipliers of Koullias form part of the amplifier rather than multiplying the output current of the element circuits to control the amplifier as claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven J. Mottola whose telephone number is 571-272-1766. The examiner can normally be reached on M-Th from 8 to 5. The examiner can also be reached on alternate Fridays from 8 to 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal, can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven J. Mottola
Primary Examiner